WHAT IS CLAIMED IS:

1. A head for recording/reading optical data, comprising:

a silicon substrate used as a holder;

a silicon deposition layer one end of which is fixed to said silicon substrate, in which a plurality of apertures are formed; and

a thin metal film formed in a probe shape in said silicon deposition layer at the bottom of said aperture,

wherein a non-linear material is buried within said aperture.

2. A head for recording/reading optical data, comprising:

a silicon substrate used as a holder;

a silicon layer one end of which is fixed to said silicon substrate, in which a plurality of apertures are formed, wherein the bottom of said aperture is projected in a probe shape; and

a thin metal film formed on said silicon layer including said aperture,

wherein a non-linear material is buried within said aperture.

3. A head for recording/reading optical data as claimed in Claim 1 or 2, wherein said aperture has a reverse-trapezoid shape.

4. A head for recording/reading optical data as claimed in Claim 3, wherein the length of a lower base of said aperture is 10 ~ 100nm.

5. A head for recording/reading optical data as claimed in Claim 1 or 2,

wherein said non-linear material includes a self-focusing phenomenon and is made of a material a third non-linear coefficient of which is great.

6. A head for recording/reading optical data as claimed in Claim 1 or 2, wherein said non-linear material is formed of As^2S^3.

7. A head for recording/reading optical data as claimed in Claim 1 or 2, wherein said thin metal film is made of aluminum.

8. A method of manufacturing a head for recording/reading optical data, comprising the steps of:

providing a silicon substrate on which a silicon oxide film and a silicon deposition layer are stacked;

etching the bottom of said silicon substrate by a given depth to form an opening;

forming an aperture having a given slant angle in said silicon deposition layer located on said opening;

forming a prove in said silicon deposition layer around said aperture exposed through said opening; and

burying said aperture with a non-linear material.

9. A method of manufacturing a head for recording/reading optical data as claimed in Claim 8, wherein the silicon substrate remaining in said opening is completely removed in the process of forming said aperture.

10. A method of manufacturing a head for recording/reading optical data as claimed in Claim 8, wherein said aperture has a reverse-trapezoid shape in which the length of its lower plane is 10 ~ 100nm and the length of its upper base is 1 μm ~ 100 μm.

11. A method of manufacturing a head for recording/reading optical data as claimed in Claim 8, wherein said probe is made of said silicon deposition layer and is formed by etching said silicon deposition layer around said aperture exposed through said opening at a slant angle same to said aperture.

12. A method of manufacturing a head for recording/reading optical data as claimed in Claim 8, wherein said probe is made of a thin metal film and is formed by the steps of:

etching said silicon deposition layer around said aperture exposed through said opening by a given depth, and

forming a thin metal film of a probe shape in said silicon deposition layer exposed through said opening.

13. A method of manufacturing a head for recording/reading optical data as claimed in Claim 8, wherein said non-linear material induces a self-focusing phenomenon and is made of a material a third non-linear coefficient of which is great.

14. A method of manufacturing a head for recording/reading optical data as claimed in Claim 8, wherein said non-linear material is made of As_2S_3 and is buried at the temperature of about 120℃.

15. A method of manufacturing a head for recording/reading optical data as claimed in Claim 8, further comprising a step of forming a thin metal film on said silicon deposition layer including said aperture after said probe is formed.

16. A method of manufacturing a head for recording/reading optical data as claimed in Claim 12 or 14, wherein said thin metal film is made of aluminum.